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THERMAL EXTRACTION METHOD FOR PRODUCING A TAXANE EXTRACT (54)

(57)The present invention relates to a thermal extraction method, comprising:

i) preparing a diterpenoid-containing biomass starting material comprising a species of the genus Taxus or Austrotaxus, wherein the biomass is reduced in size to an average diameter of less than about 2 cm in its smallest dimension;

ii) introducing the reduced size biomass starting material into a thermal extraction system comprising a contained vessel, a heat source, and at least one recovery unit; iii) heating the reduced size biomass starting material to a temperature of from about 250°C to about 650°C; and iv) collecting a condensed thermal extract comprising:

a) paclitaxel; and

b) 13-acetyl-9-dihydrobaccatin III, wherein

a) the ratio of the concentration of 13-acetyl-9-dihydrobaccatin III to the concentration of paclitaxel in the condensed thermal extract is approximately 10;

b) the ratio of the concentration of 13-acetyl-9-dihydrobaccatin III in the condensed thermal extract to the concentration of 13-acetyl-9-dihydrobaccatin III in the starting material is at least 10;

c) the residence time of the biomass starting material in the thermal extraction system is less than about 30 sec-

d) the thermal extraction method is exclusive of a solvent extraction.



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PARTIAL EUROPEAN SEARCH REPORT

Application Number

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under Rule 62a and/or 63 of the European Patent Convention. This report shall be considered, for the purposes of subsequent proceedings, as the European search report

		DOCUMENTS CONSID						
	Category	Citation of document with indication, where appropriate, of relevant passages			Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)		
6	X	CASS B J ET AL: "C isolation of taxane by fast pyrolysis", JOURNAL OF ANALYTIC PYROLYSIS, ELSEVIER vol. 57, 1 January pages 275-285, XP00 ISSN: 0165-2370, D0 10.1016/S0165-2370(* figures 1,2 * page 276 - page 2 * 2. Experimental * 3. Results and di * tables 1-3 *	s from Taxus ca AL AND APPLIED BV, NL, 2001 (2001-01-0 3012157, I: 00)00148-0	nadensis	6-13,15, 16	INV. C10B53/0 C10C5/00 C07D305/ A61K36/1 ADD. C10B49/2	14 3	
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	Claims not searched:							
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PARTIAL EUROPEAN SEARCH REPORT

Application Number

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7	E	WO 2007/045093 A1 (CANADA NATURAL RESOURCES [CA]; ABOU-ZAID MAMDOUTH [CA]; GRAHAM ROBERT) 26 April 2007 (2007-04-26) * the whole document *	6-13,15,		
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82



INCOMPLETE SEARCH SHEET C

Application Number EP 17 16 5988

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Claim(s) completely searchable: 6, 7, 10, 11, 15 Claim(s) searched incompletely: 8, 9, 12, 13, 16 Claim(s) not searched: 1-5, 14Reason for the limitation of the search: Claims 1 and 6 have been drafted as separate independent method/activity Under Article 84 in combination with Rule 43(2) EPC an application may contain more than one independent claim in a particular category only if the subject-matter claimed falls within one or more of the exceptional situations set out in paragraphs (a), (b) or (c) of Rule 43(2) EPC. This is not the case in the present application, however, for the following * the situation of paragraph (a) does not apply because claims 1 and 6 are directed towards a thermal extraction method the situation of paragraph (b) does not apply because method claims 1 and 6 do not represent use-type claims of the same product. * the situation of paragraph (c) does not apply because product claims 1 and 6 cannot be considered alternative solutions to a same problem. 'Alternative solutions' represent mutually exclusive possibilities having very little if any overlapping features or similarities. This is not the case because method claims 1-6 present considerable overlaps between themselves respectively. The applicant is referred to the Official Journal of February 2002, page 113, for examples which are representative of the exceptions that can be allowed under Rule 43(2) EPC. With a letter dated 05.02.2018, the applicant requested to base the search on independent claim 6 (and dependent claims 7 to 16). It is noted that claim 14 is not dependent on claim 6. Thus, the search report has been drawn up on the basis of independent claim 6 and claims dependent thereon (Rule 62a(1) EPC): Claims 6 (completely) and claims 7-13, 15 and 16 (partially, in so far directly dependent on claim 6).